

15. ~~(Amended)~~ The cassette of claim 11, wherein said top and bottom portions are molded of a synthetic plastic material.

16. ~~(Amended)~~ The cassette of claim 11, further comprising a pre-formed foam block in said hollow.

Please add new claims ~~17-38~~ reading as follows:

--17. The cassette of claim 11, further comprising agarose in said hollow.

18. The cassette of claim 11, further comprising both agarose and pre-formed foam block in said hollow.

19. The cassette of claim 16, further comprising filter paper positioned in said hollow to retard egress of molten paraffin.

20. A method for preparing a tissue sample for analysis, comprising the steps of:

- (a) orienting the tissue sample in the cassette of claim 11;
- (b) embedding an oriented tissue sample in a porous embedding media; and
- (c) directly processing the embedded tissue sample with tissue processing reagents while maintaining the original orientation of the sample without a post-processing paraffin-embedding step.

21. The method of claim 20, wherein the porous embedding media comprises agarose.

22. The method of claim 20, wherein the process embedded media comprises a pre-formed foam.

23. The method of claim 22, wherein the tissue sample is oriented in an opening or depression formed in said pre-formed foam.

24. The method of claim 23, including the step of forming said opening or depression by cutting, drilling, punching or molding.

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25. The method of claim 23, wherein the tissue sample is embedded flush with or below an outer surface of the pre-formed foam.

26. The method of claim 23, wherein the pre-formed foam comprises a preformed block of phenolic foam.

27. The method of claim 21, wherein said agarose has a melting point in the range of about 55 to 65°C.

28. The method of claim 20, further including the step of sectioning the embedded tissue sample following processing.

29. The method of claim 20, wherein said tissue processing reagents are selected from the group consisting essentially of aqueous formalin, water, xylene, alcohol and paraffin.

30. A hollow cassette for receiving and retaining a tissue specimen for fluid treatment preparatory to histological examination, comprising a top portion and a bottom portion snap or friction mounted to the top portion, the bottom portion having a side wall removable along a tear line, the hollow being filled, at least in part, by a porous embedding medium.

31. The cassette of claim 31, wherein said porous embedding medium comprises agarose and/or a pre-formed foam.

32. The cassette of claim 30, wherein said removable side wall bridges said top and bottom portions.

33. The cassette of claim 30, wherein said removable side wall includes a pair of tear lines.

34. The cassette of claim 30, wherein said removable wall includes a projecting tab to facilitate removal of said wall.

35. The cassette of claim 30, wherein said top and bottom portions are molded of a synthetic plastic material.

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